Daniel F. Caruso

Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Internet: ct.gov/csc

CERTIFIED MAIL RETURN RECEIPT REQUESTED

May 30, 2007

Anne Bartosewicz Middletown-Norwalk Project Director Northeast Utilities Service Company P.O. Box 270 Hartford, CT 06141-0270

RE: DOCKET NO. 272 - The Connecticut Light and Power Company and The United Illuminating Company Certificate of Environmental Compatibility and Public Need for the Construction of a New 345-kV Electric Transmission Line and Associated Facilities Between Scovill Rock Switching Station in Middletown and Norwalk Substation in Norwalk, Connecticut Including the Reconstruction of Portions of Existing 115-kV and 345-kV Electric Transmission Lines, the Construction of the Beseck Switching Station in Wallingford, East Devon Substation in Milford, and Singer Substation in Bridgeport, Modifications at Scovill Rock Switching Station and Norwalk Substation and the Reconfiguration of Certain Interconnections. Development and Management Plan – Crossings of Watercourses and Railroads in Segments 3, 4a and 4b.

Dear Ms. Bartosewicz:

At a public meeting held on May 22, 2007, the Connecticut Siting Council (Council) considered and approved the Development and Management (D&M) Plan for the Connecticut Light and Power Company's (CL&P) construction of the water crossings of the Housatonic River, Ash Creek, Mill River (Southport Harbor), Sasco Creek, and the Saugatuck River and crossing of the Metro North Railroad at the main line and the Waterbury spur with the following conditions:

- CL&P provide the location of additional staging areas, if needed, to the Council for review.
- CL&P provide the Council correspondence with the State Historic Preservation Office prior to construction.
- CL&P provide written notification to the Council no less than two weeks prior to commencement of construction.
- CL&P provide written notification to the affected municipalities no less than three weeks prior to commencement of construction.
- CL&P provide written notification to adjacent landowners no less than two weeks prior to commencement of construction.
- CL&P notify the Council and affected municipalities upon completion of construction and site rehabilitation.

Docket No. 272 D&M Watercourse and Railroad Crossings Decision Page 2

- CL&P provide monthly progress reports including any changes or deviations from the approved D&M Plan.
- CL&P notify the Council of workday and/or work hour extensions verbally and documented within 24 hours.
- CL&P provide a copy of the final MOU with the City of Bridgeport, the Town of Fairfield and the CDOT, to the Council prior to construction.
- Erosion and sediment controls comply with the <u>2002 Connecticut Guidelines for Erosion</u> and <u>Sediment Control</u>, as amended.
- Proposed deviations be authorized by the Chairman, or his or her designee, with written specification of the deviation submitted within 24 hours of a business day after the request, and all other changes be noticed to the Council for its advance approval or be subject to enforcement by the Attorney General.

This approval applies only to the D&M Plan submitted on April 5, 2007. Enclosed for your information is the staff report dated May 22, 2007.

Any deviation from the D&M plans may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Please feel free to call S. Derek Phelps, Executive Director if you have any questions.

Sincerely.

Daniel F. Caruso

Chairman

DFC/CML/laf

Enclosure

c: Council Members

Parties and Intervenors



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Docket No. 272
Connecticut Light and Power Company
Development and Management Plan
Crossings of Watercourses and Railroads in Segments 3, 4a and 4b
Milford, Stratford, Bridgeport, Fairfield, Westport
May 22, 2007

Introduction

On April 5, 2007, the Connecticut Light Power Company (CL&P) submitted to the Connecticut Siting Council (Council) for review and approval the Development and Management (D&M) Plan for the Crossings of Watercourses and Railroads in Milford, Stratford, Bridgeport, Fairfield, and Westport, Connecticut.

CL&P will cross five water bodies and two railroads using the techniques listed below:

- Housatonic River (Milford and Stratford) Horizontal Directional Drill (HDD)
- Ash Creek (Bridgeport and Fairfield) HDD
- Southport Harbor/Mill River (Fairfield) Attach to Connecticut Department of Transportation (CDOT) Bridge
- Sasco Creek (Fairfield and Westport) Attach to CDOT bridge
- Saugatuck River (Westport) HDD
- Metro North main line (near intersection of I-95 and Naugatuck Avenue in Milford) Jack & Bore (J&B)
- Metro North Waterbury spur (near intersection of Naugatuck Avenue and Kent Street in Milford)
 independent utility bridge

Consultations

CL&P consulted with municipal officials from the City of Milford, the City of Bridgeport, the Town of Fairfield, the Town of Westport and the CDOT regarding the watercourse and railroad crossings. On June 12, 2006, a copy of the draft D&M plan was submitted to all of the municipalities and the CDOT.

The Town of Milford submitted no comments regarding the watercourse or railroad crossings

On June 28, 2006, the City of Bridgeport submitted a letter stating that they had no comments. The city did; however, became an intervenor in the permit application from CL&P to the DEP Office of Long Island Sound Programs (OSLIP) for Structures, Dredging and Fill of Tidal Wetlands. The permit application was subject to a DEP adjudication hearing that resulted in a Stipulation Agreement (which modified the crossing methods used for Ash Creek, Mill River and Sasco Creek) being signed by all concerned parties including the City of Bridgeport. A memorandum of understanding (MOU), regarding impacts to traffic and business interruptions due to the use of HDD at Ash Creek, is being drafted between the City of Bridgeport, the Town of Fairfield and the CDOT. Council staff recommends that a copy of the final MOU be provided to the Council prior to construction.



On August 2, 2006, CL&P submitted a letter to William Hurley, engineer for the Town of Fairfield, which presented a history of engineering design changes for the three watercourse crossings in Fairfield as well as a review of the OSLIP and the U.S. Army Corps of Engineers permit processes. On August 9, 2006, a meeting was held with officials from the Town of Fairfield and the City of Bridgeport to discuss comments on the August 2, 2006 letter and to address concerns of municipal officials.

On August 13, 2006, the Director of Conservation for the Town of Fairfield, Mr. Thomas Steinke, submitted written concerns to First Selectman Ken Flatto regarding three of the seven water crossings contained in this D&M Plan. On August 16, 2006, a second meeting was held with officials of the Town of Fairfield and the City of Bridgeport to address the written concerns in the August 13th letter. CL&P subsequently responded with a letter dated August 23, 2006.

The Town of Fairfield requested intervenor status for CL&P/UI's permit application to for Structures, Dredging and Fill of Tidal Wetlands.

The Town of Westport had no comments regarding the watercourse or railroad crossings.

The CDOT submitted comments on the crossing plans in a letter dated July 13, 2006. CL&P addressed CDOT's comments in the drawings submitted in this D&M Plan.

Construction methods

The HDD method generally consists of three stages. First, a small diameter pilot hole is directionally drilled along a designated path. Second, the pilot hole is enlarged to a diameter large enough to accommodate the duct bank. Finally, the duct bank is pulled through the enlarged hole. Each stage of HDD involves circulating drilling fluid, which is typically a mixture of fresh water and bentonite clay, from equipment on the surface through a drill pipe and back to the surface.

The J&B method includes several trenchless construction methods for installing a casing from a launching shaft to a receiving shaft beneath obstacles. J&B methods include auger boring and pipe ramming. Auger boring involves simultaneously pushing a casing through the earth while removing soil within the casing using a rotating auger. Pipe ramming is a non-steerable technique in which a pneumatic hammer is used to push steel casing through the earth using percussive blows. J&B methods may use water or slurry for lubrication of the casing being installed, stabilization of the borehole, or to facilitate removal of spoil.

Once casing is installed using one of the J&B methods, conduits are assembled into wheeled spacers and passed through the casing. The spacers are used at five foot intervals to maintain separation of conduits required due to mutual heating and subsequent cable ampacity derating concerns. The casing is then backfilled with a grout mixture and tied into the normal duct bank construction on each end. One spare conduit per circuit will be installed with J&B installations.

The independent utility bridge installation method will be used outside of the public road rights-of-way. The area at each crossing will be cleared prior to the start of construction to accommodate equipment and materials needed during construction. Clearing will take place on parcels of property previously acquired. Substructure components will be installed at various locations using temporary and permanent sheet piling to form reinforced concrete abutments and drive piles where necessary for permanent and temporary structural measures. The superstructure consists of the beam and bracing system that will

support the transmission lines. The beams will be placed on the substructure components. Heat shielding will be placed under the superstructure to protect the cables from diesel train exhaust. Utility supports will be connected to the system and then cable ducts can be placed across the structure.

Following the installation of the above components, the structure will be aesthetically enhanced with architectural cladding and roofing to somewhat resemble a covered bridge. After completion of construction, the site will be graded, seeded and planted to restore the surroundings as near as possible to pre-construction state. Protective fencing will be installed ton enclose the elevated approach area and restrict access to the bridge.

The transmission line will be connected to the CDOT bridge along Route 1 (over Sasco Creek) and along Route 130 (over Mill River). The transmission line will be installed in empty bays (between beams) under the bridge. Temporary work platforms would be installed to perform the under bridgework. A temporary debris shield would be installed underneath the bridge deck to prevent material from entering the watercourses. The existing bridge would be modified to accommodate the installation of the transmission lines. Utility support hangers will be installed and cable ducts will be placed across the structure.

Duct Bank Installation

The duct bank installation process is common to all four trenchless crossing methods. The work zone needed for duct-bank installation is approximately 400 feet in length. The pavement of the road will be saw cut on both sides of the planned excavation to a width slightly greater than that needed for the standard duct bank.

The standard duct bank requires excavation of a four-foot wide trench to a minimum depth of five feet. Alternative duct bank configurations will be needed to avoid existing utilities and these locations typically need wider saw cuts in the pavement and a deeper trench. Trenching is expected to occur at a rate of 50 to 200 linear feet per day. Steel plating will be used to cover the open trench to allow the opening of travel lanes during periods when construction is not occurring.

Polyvinyl Chloride (PVC) conduits will be used to house the XLPE cables, grounding cables and signal and control fibers in the excavated trench. Six eight-inch conduits will contain each of three cables of each circuit. Two four-inch conduits will contain signal and control fiber-optic cables and two two-inch conduits will contain coated copper grounding cables.

The ducts will be encased in 3000-pounds per square inch (psi) concrete, then the trench will be backfilled with fluidized thermal backfill, ranging from 100-psi to 300-psi. Aggregate material will then be installed in multiple lifts with alternating compaction techniques.

A hot patch pavement restoration will be temporarily used until final pavement occurs. Permanent pavement restoration will be in accordance with standards outlined by CDOT and/or the municipality for locations within the public road rights-of-way. Restoration of the DEP property at the Housatonic River boat launch will be discussed with, and approved by, the DEP. Final restoration of non-pavement areas will occur after the pulling and splicing operations have been completed.

Access to the construction areas will be via municipal roads, adjacent parking lots and the access road to the boat launch on the Housatonic River, which is owned by CDOT and operated by the DEP. CL&P has consulted with the DEP regarding use of the boat launch and its associated access road. Contractors will be required to acquire permits from CDOT prior to construction in the access road an at the boat ramp.

The staging areas for materials and equipment have yet to be determined. Proposed staging areas will be submitted to Council staff for review and approval prior to their use.

Environmental Concerns

Some clearing will be required for areas on one or both banks of the Saugatuck River and both Metro North crossings.

Environmentally sensitive areas associated with the project consist of narrow strips of wetlands along Ash and Sasco Creeks and Mill River (Southport Harbor). The HDD entry and exit holes for the Housatonic and Saugatuck River crossings are located in paved parking areas. The two Metro North railroad crossings are located in a developed corridor near Naugatuck Avenue.

Construction activities will be in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. Excess spoil material will be removed from the site and disposed of in an approved location. Some spoil material may be retained for backfill.

Construction activities associated with the installation of the duct bank may temporarily impact wetlands. Impacts to wetlands adjacent to the right-of-way and at the base of the approaches will be restored.

A Cultural Resources Assessment Survey was done as part of the original application to the Council to identify locations of sensitive, or potentially sensitive, and cultural resources. Additional studies will be done as part of Phase II Field Reconnaissance to assess potential effects on sensitive resources. The results of this survey will be coordinated with the Connecticut Department of Culture and Tourism, State Historic Preservation Office (SHPO). CL&P will provide the Council staff, correspondence with the SHPO prior to construction.

There is one designated open space area to the north and south of the Ash Creek crossing; one designated open space area south of the Sasco Creek crossing; one open space area north of the Saugatuck River crossing on the eastern bank. These areas will not be directly impacted by construction of the duct banks.

Construction debris and excess soil will be removed and disposed of in accordance with local, state and federal regulations. All contaminated spoil and/or groundwater encountered will be handled in accordance with local, state and federal regulations.

CL&P has provided the Council staff a soil and groundwater handling plan that was developed for the underground portion of the project. An assessment of the project area has indicated that most, if not all, of the groundwater that will be encountered during construction will require treatment as polluted or contaminated water.

Rehabilitation of the roadways and adjacent properties will be subject to review by the CDOT and municipalities. All impacted roads, curbs, and adjacent properties or structures that are impacted by construction and installation of the duct bank will be restored to pre-existing conditions.

Areas between the curb and the approaches to the utility bridge will be restored to original topography and land use. Vegetation that is removed for the construction of the utility will be replaced in-kind based on variety, number and size of plants. Additional landscaping may be planted to screen the aboveground structures at the utility bridge.

All entry and exit points for the HDD crossings are located in asphalt or gravel parking lots and will be restored to pre-construction conditions. Entry and exit points for the J&B of the Metro North railroad crossing are in gravel areas and will be restored to pre-construction conditions.

Construction associated with this project is anticipated to take approximately 42 months. The approximate construction schedule is:

Survey	May, 2005 – March, 2006
Engineering	June, 2005 – December, 2006
Procurement	October, 2006 – August, 2007
Fabrication/delivery of large equipment	December, 2006 - March, 2008
Civil Work	June, 2007 – August, 2008
Landscaping	July, 2007 – November, 2008
Cable Installation	July, 2007 – September, 2008
Testing	October, 2008 – November, 2008

Construction activities at the HDD crossings of the Saugatuck River, Ash Creek and the Housatonic River are expected to take place using a 72-hour work week consisting of six, 12-hour days. Other construction activities will take place during state and municipally approved hours using a 60-hour work week consisting of six 10-hour days per week with overtime, if necessary. There may be instances when J&B and HDD operations need to be performed on a continuous 24-hour basis.

Notification and Reporting

CL&P will provide notification to the Council and adjacent landowners at least two weeks prior to commencement of construction. Written notification will be sent to the Council upon completion of construction and site rehabilitation for the watercourse and railroad crossings. CL&P will provide the Council with monthly progress reports including any changes or deviations from the approved D&M Plan.

CL&P will provide affected municipalities at least three weeks notice prior to the commencement of construction and will notify municipalities when work is complete.

A final report will be provided to the Council including:

- All agreements with adjacent landowners or other property owners regarding special maintenance precautions
- Significant changes to the D&M Plan that are necessary due to property rights of underlying and adjoining owners or for other reasons
- Location of any non-transmission materials that have been left in place
- Actual construction cost of the facility including but not limited to clearing and access; construction; and rehabilitation

D&M Plan Change Process

CL&P proposes the following procedures (established in the Docket 217 D&M Plan) to address deviations of the D&M Plan:

- For proposed deviations prior to the start of construction or well in advance of commencement of any specified activity, CL&P will submit a request in writing for review and approval by the Council;
- For proposed deviations during construction based upon field conditions, conduct a telephone conference with Council staff to present the proposed modification and receive verbal approval from the Council's Chairman with written specification of the deviation to be submitted within 24 hours after the request; and
- Implementation of deviations to the D&M Plan that are approved by the Council will be documented within the monthly monitoring reports to be submitted by the independent environmental inspector.

Council staff recommends that proposed deviations be authorized by the Chairman with written specification of the deviation submitted within 24 hours of a business day after the request and all other changes require advance notification and Council approval or be subject to enforcement by the Attorney General.

To summarize, the Council staff recommends approval of the watercourse and railroad crossings in Segments 3, 4a and 4b portion of the D&M Plan, with the following conditions:

CL&P provide the location of additional staging areas, if needed, to the Council for review.

CL&P provide the Council correspondence with the State Historic Preservation Office prior to construction.

CL&P provide written notification to the Council no less than two weeks prior to commencement of construction.

CL&P provide written notification to the affected municipalities no less than three weeks prior to commencement of construction.

CL&P provide written notification to adjacent landowners no less than two weeks prior to commencement of construction.

CL&P notify the Council and affected municipalities upon completion of construction and site rehabilitation.

CL&P provide monthly progress reports including any changes or deviations from the approved D&M Plan.

CL&P notify the Council of workday and/or work hour extensions verbally and documented within 24 hours.

CL&P provide a copy of the final MOU with the City of Bridgeport, the Town of Fairfield and the CDOT, to the Council prior to construction.

Erosion and sediment controls comply with the <u>2002 Connecticut Guidelines for Erosion and Sediment Control</u>, as amended.

Proposed deviations be authorized by the Chairman, or his or her designee, with written specification of the deviation submitted within 24 hours of a business day after the request, and all other changes be noticed to the Council for its advance approval or be subject to enforcement by the Attorney General.



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NOTICE OF SERVICE

I hereby affirm that a photocopy of this document was sent to each Party and Intervenor on the service list dated May 14, 2007.

Dated: May 30, 2007

Lisa Fontaine

Custodian of Docket No. 272